

In the Claims:

1. (Amended) An article of manufacture comprising:
- a first container containing a liquid phase, the liquid phase comprising:
 - peroxidic species or reaction products resulting from oxidation of an alkene by a mixture of ozone and oxygen, wherein the alkene has less than about 35 carbons;
 - a penetrating solvent; and
 - a second container containing a solid phase, the solid phase comprising:
 - a dye containing a chelated divalent or trivalent metal; and an aromatic redox compound.
2. (Original) The article of manufacture of claim 1, wherein the alkene comprises an open-chain unsaturated hydrocarbon, a monocyclic unsaturated hydrocarbon, or a bicyclic unsaturated hydrocarbon.
3. (Original) The article of manufacture of claim 1, wherein the alkene comprises an open-chain unsaturated hydrocarbon, a monocyclic unsaturated hydrocarbon, or a bicyclic unsaturated hydrocarbon.
4. (Original) The article of manufacture of claim 1, wherein the alkene comprises an open-chain unsaturated alcohol, a monocyclic unsaturated alcohol, or a bicyclic unsaturated alcohol.
5. (Original) The article of manufacture of claim 1, wherein the alkene is an hydroxyl-containing alkene.

6. (Original) The article of manufacture of claim 1, wherein the alkene is in a liquid form, in a solution, or in a dispersion.
7. (Original) The article of manufacture of claim 1, wherein the alkene comprises an isoprenoid.
8. (Amended) The article of manufacture of claim [6] 7, wherein the isoprenoid comprises α -terpineol, citronellol, nerol, phytol, menthol, linalool, geraniol, geranylgeraniol, or farnesol.
9. (Amended) The article of manufacture of claim [6] 7, wherein the isoprenoid comprises myricene, citrillene, citral, pinene, or limonene.
10. (Amended) The article of manufacture of claim 1, wherein the alkene comprises [fixed oil-, ester-, fatty acid-, or ether-containing olefin.] a fixed oil containing the alkene, an ester containing the alkene, a fatty acid containing the alkene, or a ether containing the alkene.
11. (Amended) The article of manufacture of claim 1, wherein the [oxygen-containing oxidizing agent] mixture of ozone and oxygen comprises singlet oxygen, oxygen in its triplet state, superoxide anion, periodate, hydroxyl radical, peroxide, or oxygen bound to a transition element.
12. (Amended) The article of manufacture of claim 1, wherein the [oxygen-containing oxidizing agent] mixture of ozone and oxygen comprises ozone.

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13. (Original) The article of manufacture of claim 1, wherein the penetrating solvent is a liquid, micelle membrane, emollient, plasma, or vapor.
14. (Original) The article of manufacture of claim 1, wherein the penetrating solvent is dimethylsulfoxide.
15. (Original) The article of manufacture of claim 1, wherein the penetrating solvent is polyvinylpyrrolidone or a pH-buffered saline.
16. (Original) The article of manufacture of claim 1, wherein the penetrating solvent is aqueous solution, fats, sterols, lecithins, phosphatides, ethanol, propylene glycol, or methylsulfonylmethane.
17. (Original) The article of manufacture of claim 1, wherein the dye can be activated by an energy.
18. (Original) The article of manufacture of claim 1, wherein the dye comprises porphyrin or rose bengal.
19. (Original) The article of manufacture of claim 1, wherein the dye comprises chlorophyllin, hemin, corrins, texaphrin, methylene blue, hematoxylin, eosin, erythrosin, lactoflavin, anthracene dye, hypericin, methylcholanthrene, neutral red, or fluorescein.
20. (Amended) The article of manufacture of claim [16] 17, wherein the energy comprises photon[or electroporation pulse].

21. (Amended) The article of manufacture of claim [16] 17, wherein the energy comprises laser[,] or ionizing radiation. [, phonon, electrical pulse, magnetic field, plasma pulse, gravitational pulse, or continuous flow excitation.]
22. (Original) The article of manufacture of claim 1, wherein the metal comprises iron.
23. (Original) The article of manufacture of claim 1, wherein the metal comprises copper, manganese, tin, magnesium, or strontium.
24. (Original) The article of manufacture of claim 1, wherein the aromatic redox compound comprises benzoquinone or naphthoquinone.
25. (Original) The article of manufacture of claim 1 further comprising an electron donor.
26. (Amended) The article of manufacture claim [24] 25, wherein the electron donor comprises ascorbic acid or a pharmaceutical salt thereof.
27. (Amended) The article of manufacture of claim [24] 25, wherein the electron donor comprises [plasma,] electrical current or germanium sesquioxide.
28. (Original) An article of manufacture comprising:
 a first container containing a liquid phase, the liquid phase comprising:
 peroxidic species or reaction products resulting from oxidation of a hydroxyl-containing alkene by a mixture of ozone and oxygen, wherein the hydroxyl-containing comprises α -terpineol, citronellol, nerol, linalool,

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phytol, geraniol, perillyl alcohol, menthol, geranylgeraniol or farnesol alkene by a mixture of ozone and oxygen; and
a penetrating solvent, wherein the penetrating solvent comprises dimethylsulfoxide, sterol, lecithin, propylene glycol, or methylsulfonylmethane; and

a second container containing a solid phase, the solid phase comprising:

a dye containing a chelated divalent or trivalent metal, wherein the dye comprises porphyrin, rose bengal, chlorophyllin, hemin, corrins, texaphrin, methylene blue, hematoxylin, eosin, erythrosin, lactoflavin, anthracene dye, hypericin, methylcholanthrene, neutral red, or fluorescein; and
an aromatic redox compound, wherein the redox compound comprises benzoquinone or naphthoquinone.

29. (Amended) The article of manufacture of claim [27] 28 further comprising an electron donor.
30. (Amended) The article of manufacture of claim [28] 29, wherein the electron donor comprises ascorbic acid or a pharmaceutical salt thereof.
31. (Original) A method for treating a patient with coronary arteriosclerosis comprising:
administering to the patient an effective amount of a pharmaceutical formulation comprising:
peroxidic species or reaction products resulting from oxidation of an alkene by an oxygen-containing oxidizing agent, wherein the alkene has less than about 35 carbons;
a penetrating solvent;

a dye containing a chelated divalent or trivalent metal; and
an aromatic redox compound.

32. (Amended) The method of claim [30] 31, wherein the alkene comprises an open-chain unsaturated hydrocarbon, a monocyclic unsaturated hydrocarbon, or a bicyclic unsaturated hydrocarbon.
33. (Amended) The method of claim [30] 31, wherein the alkene comprises an open-chain unsaturated alcohol, a monocyclic unsaturated alcohol, or a bicyclic unsaturated alcohol.
34. (Amended) The method of claim [30] 31, wherein the alkene is a hydroxyl-containing alkene.
35. (Amended) The method of claim [30] 31, wherein the alkene is in a liquid form, in a solution, or in a dispersion.
36. (Amended) The method of claim [30] 31, wherein the alkene comprises an isoprenoid.
37. (Amended) The method of claim 36, wherein the isoprenoid comprises α -terpineol, citronellol, nerol, phytol, perillyl alcohol, menthol, linalool, geranylgeraniol, geraniol, or farnesol.
38. (Amended) The method of claim 36, wherein the isoprenoid comprise myricene, citrillene, citrala, pinene, or limonene.
39. (Amended) The method of claim [30] 31, wherein the alkene comprises [fixed oil-, ester-, fatty acid-, or ether-containing olefin.] a fixed oil containing the alkene, an ester containing the alkene, a fatty acid containing the alkene, or a ether containing the alkene.

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40. (Amended) The method of claim [30] 31, wherein the [oxygen-containing oxidizing agent] mixture of ozone and oxygen comprises singlet oxygen, oxygen in its triplet state, superoxide anion, periodate, hydroxyl radical, peroxide, or oxygen bound to a transition element.
41. (Amended) The method of claim [30] 31, wherein the [oxygen-containing oxidizing agent] mixture of ozone and oxygen comprises ozone.
42. (Amended) The method of claim [30] 31, wherein the penetrating solvent is a liquid, micelle membrane, emollient, [plasma,] or vapor.
43. (Amended) The method of claim [30] 31, wherein the penetrating solvent is dimethylsulfoxide.
44. (Amended) The method of claim [30] 31, wherein the penetrating solvent is polyvinylpyrrolidone or a pH-buffered saline.
45. (Amended) The method of claim [30] 31, wherein the penetrating solvent is aqueous solution, fats, sterols, lecithins, phosphatides, ethanol, propylene glycol, or methylsulfonylmethane.
46. (Amended) The method of claim [30] 31, wherein the dye comprises porphyrin or rose bengal.
47. (Amended) The method of claim [30] 31, wherein the dye comprises chlorophyllin, hemin, corrins, texaphrin, methylene blue, hematoxylin, eosin, erythrosin, lactoflavin, anthracene dye, hypericin, methylcholanthrene, neutral red, or fluorescein.

48. (Amended) The method of claim [30] 31, wherein the metal comprises iron.
49. (Amended) The method of claim [30] 31, wherein the metal comprises copper, manganese, tin, magnesium, or strontium.
50. (Amended) The method of claim [30] 31, wherein the aromatic redox compound comprises benzoquinone or naphthoquinone.
51. (Amended) The method of claim [30] 31 further comprising an electron donor.
52. (Amended) The method of claim [30] 31, wherein the electron donor comprises ascorbic acid or a pharmaceutical salt thereof.
53. (Original) A method for treating a patient with coronary arteriosclerosis comprising:
administering to the patient an effective amount of a pharmaceutical formulation comprising:
peroxidic species or reaction products resulting from oxidation of a hydroxyl-containing alkene by a mixture of ozone and oxygen, wherein the hydroxyl-containing comprises α -terpineol, citronellol, nerol, linalool, phytol, geraniol, perillyl alcohol, menthol, geranylgeraniol or farnesolalkene by a mixture of ozone and oxygen;
a penetrating solvent, wherein the penetrating solvent comprises dimethylsulfoxide, sterol, lecithin, propylene glycol, or methylsulfonylmethane;
a dye containing a chelated divalent or trivalent metal, wherein the dye comprises porphyrin, rose bengal, chlorophyllin, hemin, corrins, texaphrin, methylene blue, hematoxylin, eosin, erythrosin, lactoflavin, anthracene dye, hypericin, methylcholanthrene, neutral red, or fluorescein; and

an aromatic redox compound, wherein the redox compound comprises benzoquinone or naphthoquinone.

54. (Amended) The method of claim [52] 53 further comprising an electron donor.

55. (Amended) The method of claim [53] 54, wherein the electron donor comprises ascorbic acid or a pharmaceutical salt thereof.
